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QA: QA

## U.S. DEPARTMENT OF ENERGY OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT OFFICE OF QUALITY ASSURANCE

## REPORT FOR AUDIT OQAC-BSC-03-06 OF BECHTEL SAIC, LLC IN WASHINGTON, DC

**SEPTEMBER 15 - 16, 2003** 

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#### **EXECUTIVE SUMMARY**

Auditors representing the Office of Civilian Radioactive Waste Management (OCRWM) conducted a compliance-based audit of the quality-affecting activities performed by Bechtel SAIC, LLC (BSC) in Washington, DC. The audit was conducted on September 15 and 16, 2003, with an exit meeting on September 24, 2003. The last two days of the audit were canceled due to inclement weather resulting in closure of the BSC Washington Operations office.

The audit team identified one condition adverse to quality (CAQ), a noncompliance with the implementation of Administrative Procedure (AP)-2.20Q, *Self-Assessments*. The condition identified in Self-Assessment, SA-SPPI-2003-001, was not processed in accordance with the requirements of AP-16.1Q, *Management of Conditions Adverse to Quality*, AP-15.2Q, *Control of Nonconformances*, or AP-REG-004, *Condition/Issue Identification and Reporting/Resolution System*. This CAQ is documented as Condition Report (CR) 864. The audit team made one recommendation concerning the development of a documented method for determining the applicability of DOE/RW-0333P, Revision 13, *Quality Assurance Requirements and Description* (QARD), to products not subject to the requirements of AP-3.13Q, *Design Control*, or AP-2.27Q, *Planning for Science Activities*.

The audit team determined that the procedures were adequate and that the procedural implementation was satisfactory for the areas examined during the audit, with the exception noted in the CR. The audit team concluded that BSC Washington Operations is adequately and effectively implementing the QARD.

#### 1.0 INTRODUCTION

## 1.1 Purpose and Scope

Representatives of the OCRWM conducted a compliance-based audit on September 15 and 16, 2003, of BSC activities and processes at the BSC Washington Operations office. The audit team evaluated BSC compliance with the requirements of implementing procedures through personnel interviews and document examination. The audit team also reviewed the procedures for adequacy in implementing the requirements of the QARD.

The audit team evaluated compliance with implementing procedures for the following QARD Sections:

Section 1.0	Organization
Section 2.0	Quality Assurance Program
Section 3.0	Design Control
Section 4.0	Procurement Document Control
Section 5.0	Implementing Documents
Section 6.0	Document Control
Section 7.0	Control of Purchased Items and Services
Section 16.0	Corrective Action
Section 17.0	QA Records

#### 1.2 Audit Team Members and Observers

James E. Flaherty, Navarro Quality Services (NQS)/Audit Team Leader, Las Vegas, NV Marilyn A. Kavchak, NQS/Auditor, Las Vegas, NV

No observers participated in the audit.

#### 1.3 Audit Meetings and Personnel Contacted

A pre-audit meeting was held on September 15, 2003, in the BSC Washington Operations office. A team caucus was held on September 15 and 16 to discuss the progress of the audit and potential CAQs. The remainder of the audit (September 18 and 19) was conducted off site when the BSC Washington, DC office closed due to severe weather conditions. The audit exit meeting was held, via teleconference, on September 24, 2003, with representatives from Washington Operation and Las Vegas, NV.

Attachment A, Personnel Interfaces, lists the personnel contacted during the audit, including those who attended the pre-audit and audit exit meetings.

## 2.0 PROGRAM DISCUSSION

## 2.1 Organization

BSC implements Line Procedure (LP)-1.0Q-BSC, Revision 2, ICN 1, *Organization*, to address compliance with the requirements of QARD, Section 1.0, "Organization." The procedure specifices organizational interfaces, structure, and roles and responsibilities to other controlled documents (i.e., organizational charts and procedures). In addition, this procedure addresses responsibility for quality, delegation of work, and resolution of quality disputes. The audit team verified that BSC Washington Operations has controlled documents in place that adequately describe organizational interfaces, structures, requirements, and responsibilities for work scope. The audit team reviewed the Organization Chart for BSC Washington Operations and examined seven delegation of authority memorandums. The Organization Chart was consistent with that outlined by the procedure and all of the memorandums were processed as QA records in accordance with LP-1.0Q-BSC procedural requirements. The delegation of authority memorandum, identified as QA: QA were processed as electronic mail (e-mail). Those examined were:

- Robert Stifel to staff, August 21, 2003
- Joanne Thompson on behalf of Collin Moller, August 8, 2003
- William Garfield to staff, May 2, 2003
- William Garfield to staff, April 10, 2003
- Robert Stifel to staff, June 24, 2003
- Robert Stifel, December 18, 2002
- Joanne Thompson on behalf of Collin Moller, August 18, 2003

## 2.2 Quality Assurance Program

BSC implements procedures AP-2.1Q, *Indoctrination and Training of Personnel;* AP-2.14Q, *Review of Technical Products and Data;* and AP-2.20Q, *Self-Assessments*, to fulfill the applicable requirements of QARD Section 2.0, "Quality Assurance Program."

• AP-2.1Q: Indoctrination and training of BSC Washington Operations office personnel were examined in accordance with Revision 2, ICN 2. Training status reports for 15 individuals were examined and found to be adequate. The training identified was appropriate for the job function of each individual. Status reports for the following individuals, identified by employee identification number, were examined:

629	17839	867	11428	16318	17406
221	14226	15364	13397	15675	17193
691	675	17110			

- AP-2.14Q, Revision 2, ICN 2: BSC Washington Operation implements this procedure for the review of procedures, interdisciplinary reviews, and for documenting the impacts of changed inputs. BSC Washington Operation had not initiated any AP-2.14Q reviews during the period covered by this audit, but had been a participant on reviews initiated by other organizations.
- AP-2.20Q, Revision 1, ICN 1: BSC implements this procedure for self-assessments. The audit team examined Self-Assessment Report, SA-SPPI-2003-001, Self-Assessment of the Electronic Records Management System Utilization. This assessment was conducted to determine if e-mail was correctly identified and categorized as a Federal Record, or identified as a non-record. The report identifies a number of conditions. There is no objective evidence that the conditions were processed in accordance with the requirements of Sections 5.5.1 paragraphs c) and d), of procedure AP-2.20Q. Procedure c) states in part: "If any deficiencies or nonconformances are identified, document them in accordance with AP-16.1Q, Management of Conditions Adverse to Quality, or AP-15.2Q, Control of Nonconformances, respectively." Paragraph d) states in part: "Enter other identified conditions/issues and OIs that are not deficiencies/nonconformances as defined in AP-16.1Q and AP-15.2Q, respectively, into CIRS in accordance with AP-REG-004, Condition/Issue Identification and Reporting/Resolution System." Neither requirement was met. This condition has been documented as CR 864. This was the only self-assessment conducted during the audited period.

### 2.3 Design Control

BSC implements procedures AP-3.11Q, Revision 3, ICN 4, *Technical Reports*, and AP-3.15Q, Revision 4, ICN 2, *Managing Technical Product Inputs*, to comply with the applicable requirements of QARD, Section 3.0, "Design Control." Washington Operations uses these procedures to develop and revise DOE system requirements documents such as DOE/RW-0351, *Waste Acceptance System Requirements Document* (WASRD), and DOE/RW-0406, *Civilian Radioactive Waste Management System Requirements Document* (CRD). These documents are awaiting DOE Office of Environmental Management (EM) concurrence and were revised prior to the period covered by this audit. The audit team discussed these implementing procedures with the BSC Washington Operation management to determine if quality-affecting products were developed during the period covered by the audit and to determine how products were evaluated for QARD applicability. Three documents were examined:

- TDR-CRW-SE-000022, Revision 01, 2002 Waste Stream Projections Report
- TDR-CRW-SE-000023, Revision 1, Modular Construction System Evaluation
- Software Development Plan –CALVIN 4.0

All three of these technical products were designated QA: NA. An Activity Evaluation was conducted for TDR-CRW-SE-000022 in accordance with the *Technical Work Plan for Design Basis Waste Input for License Application*, and the document was determined not to be subject to the requirements of the QARD. The other two documents were also designated QA: NA. However, an Activity Evaluation was not performed for these documents, and there is no

objective evidence demonstrating how the QA: NA designation was determined. These documents were developed after the procedure requiring an Activity Evaluation (AP-2.21Q, *Quality Determinations and Planning for Scientific, Engineering, and Regulatory Compliance Activities*) was cancelled.

Recommendation #1: A formal, documented method for determining QARD applicability needs to be developed for products not subject to the requirements of AP-3.13Q, *Design Control*, or AP-2.27Q, *Planning for Science Activities*.

#### 2.4 Procurement Document Control

BSC Washington Operation does not implement procurement document control procedures. Procurements are processed through BSC in Las Vegas, Nevada. Five random DOE Technical Direction Letters (TDL) to BSC were examined to determine if the TDLs changed the scope of work, deliverable content, or estimated costs for the Work Breakdown Structure (WBS) element prescribed in the OCRWM Annual Work Plan (AWP). The TDLs examined were TDL numbers 02-003, 02-036, 03-005, 03-030, and 03-032. All of the TDLs were clarifications to the AWP under WBS 9.1.2, Systems Analysis.

## 2.5 Implementing Documents

BSC implements procedure AP-5.1Q, Revision 4, ICN 2, *Procedure Preparation, Review, and Approval*, to comply with the applicable requirements of QARD, Section 5.0. BSC Washington Operations is revising procedures AP-3.9Q, *Interface Management Process*, and LP-4.2Q-OCRWM, *Procurement of Services*, for OCRWM. Both of these procedures were in draft and were not reviewed during the audit.

#### 2.6 Document Control

BSC implements procedures AP-6.1Q, Revision 7, ICN 1, *Document Control*, and AP-6.28Q, Revision 0, ICN 1, *Document Review*, to comply with the applicable requirements of QARD, Section 6.0, "Document Control."

- AP-6.1Q: This section was not thoroughly evaluated by the audit team due to time constraints.
- AP-6.28Q: BSC Washington Operations implements this procedure for technical document reviews that involve reviewers external to BSC, such as the Naval Nuclear Propulsion Program and EM. The audit team examined the records packages for the AP-6.28Q reviews of WASRD, Revision 5, and CRD, Revision 6. The AP-5.1Q Review Record forms and Comment Sheet forms were used by all reviewers and designated alternate reviewers. The review packages were examined for completeness, legibility, and reviewer concurrence. The

WASRD, Revision 5, review package was evaluated against a memorandum (Steven L. Ross, October 23, 2002) that listed required reviewers and their organizations. All the required reviewers, Review Record forms, and Comment Sheet forms were accounted for in the package.

#### 2.7 Control of Purchased Items and Services

BSC Washington Operations does not implement QARD, Section 7.0. Procurements are processed through BSC in Las Vegas, NV.

#### 2.8 Corrective Actions

BSC implements procedure AP-16.1Q, Revision 6, ICN 0, *Management of Conditions Adverse to Quality*, to fulfill the applicable requirements of QARD, Section 16.0, "Corrective Action." BSC Washington Operations had not initiated any CRs during the period covered by the audit, and no CRs were issued against BSC Washington Operations. All corrective actions for previously issued CRs were completed.

## 2.9 Quality Assurance Records

BSC implements procedure AP-17.1Q, Revision 2, ICN 5, *Records Source Responsibilities for Inclusionary Records*, to fulfill the applicable requirements of QARD, Section 17.0, "Quality Assurance Records." The procedure requires that the first page of a quality-affecting record contain a title, subject line or description, and a QA designator. In addition, any corrected information must be dated and initialed, stamped, or signed. The audit team reviewed the following records in the Washington, DC, Records Processing Center (RPC):

- Self-Assessment Report SA-SPPI-2003-001, Self-Assessment of the Electronic Records Management System Utilization (this report is designated QA: NA)
- CRD, Revision 6 (in process)
- WASRD, Revision 5 (in process)

These records did have correct first pages, and the audit team concluded that those requirements of the procedure were met.

AP-17.1Q requires that individual records and records packages be submitted to the RPC within 60 days of completion. The CRD, Revision 6, records package did not meet this requirement. However, the package was considered in process pending concurrence with EM and not a CAQ.

### 3.0 AUDIT RESULTS

The audit identified one CAQ that was documented as CR 864, and identified one recommendation for BSC Washington Operations management consideration. Attachment B presents a summary of audit results by QARD Section.

### 3.1 Condition Reports

CR: Self-Assessment SA-SPPI-2003-001, *Self-Assessment of the Electronic Records Management System Utilization*, was conducted to determine if e-mail was correctly identified and categorized as a Federal Record, or identified as a non-record. The report resulted in the following findings:

- 1. 55 of 7,323 e-mails identified as Federal Records should have been identified as non-records.
- 2. 153 of 7,323 Federal Records were not in an appropriate OPRRS<sup>1</sup> category.
- 3. 413 of 2,395 e-mails identified as non-records should have been identified as Federal Records and categorized in OPRRS.

#### Specific Requirement:

AP-2.20Q, Revision 1, ICN 1, *Self-Assessments*, Section 5.5.1 paragraph c) states in part: "If any deficiencies or nonconformances are identified, document them in accordance with AP-16.1Q, *Management of Conditions Adverse to Quality*, or AP-15.2Q, *Control of Nonconformances, respectively.*" AP-2.20Q, paragraph d) states in part: "Enter other identified conditions/issues and other OIs that are not deficiencies/nonconformances as defined in AP-16.1Q and AP-15.2Q, respectively, into CIRS in accordance with AP-REG-004, *Condition/Issue Identification and Reporting/Resolution System.*"

There is no objective evidence that these findings were processed in accordance with AP-2.20Q, Revision 1, ICN 1, Sections 5.5.1 paragraphs c) and d).

#### 3.2 Recommendation

A documented method for determining QARD applicability needs to be developed for products not subject to the requirements of AP-3.13Q, *Design Control*, or AP-2.27Q, *Planning for Science Activities*.

## 3.3 Program Adequacy, Implementation, and Effectiveness

The audit team determined that BSC Washington Operations procedures were adequate in implementing the QARD, with the exception noted in the audit team's recommendation. In addition, the audit team verified that BSC Washington Operations was in compliance with programmatic procedures and concludes that the QA program was effective.

#### 4.0 ATTACHMENTS

Attachment A - Personnel Interfaces

Attachment B - Summary of Audit Results

<sup>&</sup>lt;sup>1</sup> OCRWM Program Records Retention Schedule

## **Attachment A – Personnel Interfaces**

Name	Organization	Pre-Audit Meeting	Contacted During Audit	Audit Exit Meeting
Benz, Ed	BSC	X		
Derby, Shirl	BSC	X	X	X
Flaherty, James	NQS	X		X
Garfield, William	BSC	X	X	
George, James	BSC	X	X	X
Gillespie, Scott	BSC	X	X	
Junium, Warren	BSC	X		X
Karl, Denise	BSC	X	X	
Kavchak, Marilyn	NQS	X		X
Kittrell, Connie	BSC			X
Moller, Collin	BSC	X	X	X
Reyes, German	BSC	X	X	
Ross, Steven	BSC	X		
Ruffin, Gladys	BSC	X	X	X
Stifel, Robert	BSC	X	X	X
Sweeney, Timothy	BSC	X	X	
Swenning, Steve	BSC			X
Swift, Thomas	BSC	X	X	X
Turner, Paul	BSC			X
Walden, Fred	BSC	X		X
Weber, Carl	DOE/OQA	X		X

Legend:

BSC = Bechtel SAIC Company, LLC
NQS = Navarro Quality Services
DOE = U.S. Department of Energy
OQA = Office of Quality Assurance

# Attachment B – Summary of Audit Results

QARD Section	<b>Implementing Documents</b>	Auditor	Condition Reports	Recommendations	Program	Compliance	Overall
1	LP-1.0Q-BSC REV 2 ICN 1	J. Flaherty, M. Kavchak			Adequate	Satisfactory	Effective
2	AP-2.1Q REV 2 ICN 2	M. Kavchak			Adequate	Satisfactory	Effective
	AP-2.14Q REV 2 ICN 2	J. Flaherty, M. Kavchak			Adequate	Satisfactory	
	AP-2.20Q REV 1 ICN 0	M. Kavchak	CR 864		Adequate	Satisfactory	
3	AP-3.11Q REV 3 ICN 4	J. Flaherty		#1	Adequate	Satisfactory	Effective
	AP-3.15 REV4 ICN 2	J. Flaherty			Adequate	Satisfactory	
4		J. Flaherty			Not implemented		
5	AP-5.1Q REV 4 ICN 2	M. Kavchak			Adequate	Satisfactory	Effective
6	AP-6.1Q REV 7 ICN 1	M. Kavchak			Adequate	Satisfactory	Effective
	AP-6.28Q REV 0 ICN 1	J. Flaherty			Adequate	Satisfactory	Effective
7		J. Flaherty			Not implemented		
16	AP-16.1Q REV 6 ICN 0	M. Kavchak			Adequate	Satisfactory	Effective
17	AP-17.1Q REV 2 ICN 5	J. Flaherty, M. Kavchak			Adequate	Satisfactory	Effective